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SEQUENCE LISTING

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PRICKETT, KATHRYN S.

<120> NOVEL EXENDIN AGONIST COMPOUNDS

<130> 238/087 US

<140> 09/554,531

<141> 2000-08-08

<150> PCT/US98/24273

<151> 1998-11-13

<150> 60/066,029

<151> 1997-11-14

<160> 110

<170> PatentIn Ver. 2.1

<210> 1

<211> 39

<212> PRT

<213> Heloderma horridum

<220>

<223> c-term amidation

<400> 1

His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 2

<211> 39

<212> PRT

<213> Heloderma suspectum

<220>

<223> c-term amidation

<400> 2

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

B1

<210> 3
 <211> 30
 <212> PRT
 <213> Homo sapiens

<220>
 <223> c-term amidation

<400> 3
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 4
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist
 formula peptide

<220>
 <223> c-term may be amidated

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 <222> (1)
 <223> His, Arg, Tyr, Ala, Norval, Val or Norleu

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 <223> Ser, Gly, Ala or Thr

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 <222> (3)
 <223> Ala, Asp or Glu

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 <222> (4)
 <223> Ala, Norval, Val, Norleu or Gly

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 <223> Ala or Thr

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<223> Phe, Tyr or naphthylalanine

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<223> Thr or Ser

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<223> Ala, Ser or Thr

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<223> Ala, Norval, Val, Norleu, Asp or Glu

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<223> Ala, Leu, Ile, Val, pentylglycine or Met

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<223> Ala or Ser

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<223> Ala or Arg

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<223> Ile, Val, Leu, pentylglycine, tert-butylglycine or Met

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<223> Ala, Glu or Asp

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<223> Ala, Trp, Phe, Tyr or naphthylalanine

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<223> Ala or Leu

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<223> Ala or Asn

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<222> (31)
<223> Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine
N-alkylpentylglycine or N-alkylalanine

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<222> (36)..(38)

<223> Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine
N-alkylpentylglycine or N-alkylalanine

<220>

<223> provided that no more than three of Xaa3, Xaa4, Xaa5, Xaa6,
Xaa8, Xaa9, Xaa10, Xaa11, Xaa12, Xaa13, Xaa14, Xaa15,
Xaa16, Xaa17, Xaa19, Xaa20, Xaa21, Xaa24, Xaa25, Xaa26,
Xaa27 and Xaa28 are Ala

<220>

<223> provided also that, if Xaa1 is His, Arg or Tyr, then at
least one of Xaa3, Xaa4 and Xaa9 is Ala

<220>

<223> this peptide may encompass 28-39 residues, wherein residues
1-28 are constant and residues 29-39 may vary in length
according to the specification as filed; see specification for
detailed description of substitutions and preferred embodiments

<400> 4

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa Ser
35

<210> 5

<211> 28

<212> PRT

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<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 5

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 6

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 6

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 7

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

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His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 8

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 8

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 9

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 9

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 10

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 10

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
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<210> 11

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 11

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 12

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 12

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 13

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 13

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 14

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 14

Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 15

<211> 28

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 15

Ala Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 . 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 16

<211> 28

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 16

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 17

<211> 28

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 17

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 18

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 18

Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 19

<211> 28

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 19

Ala Gly Asp Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 20

<211> 28

<212> PRT

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<223> c-term amidation

<220>

<221> MOD_RES

<222> (6)

<223> naphthylalanine

<400> 20

Ala Gly Asp Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 21

<211> 28

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<220>
<221> MOD_RES
<222> (6)
<223> naphthylalanine

<400> 21
Ala Gly Asp Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 22
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
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<400> 22
Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

<210> 23
<211> 28
<212> PRT
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 23
Ala Gly Asp Gly Thr Phe Ser Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

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<210> 24
<211> 28
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 24
Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

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<210> 25
<211> 28
<212> PRT
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 25
Ala Gly Asp Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

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<210> 26
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<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 26
Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

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<210> 27
<211> 28
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

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<400> 27
Ala Gly Asp Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
 1              5              10              15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
          20              25

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<210> 28
<211> 28
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 28
Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
20 25

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<210> 29
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<212> PRT.
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 29
Ala Gly Asp Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Leu Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
20 25

<210> 30
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> c-term amidation

<400> 30
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 31
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 31
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 32
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 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (10)
 <223> pentlyglycine

<400> 32
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 33
 <211> 28
 <212> PRT
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<220>
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<220>
 <223> c-term amidation

<220>
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 <223> pentlyglycine

<400> 33
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 34
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <223> c-term amidation

<400> 34
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 35
 <211> 28
 <212> PRT
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<220>
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<220>
 <223> c-term amidation

<400> 35

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 36

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> c-term amidation

<400> 36

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
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<210> 37

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 37

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
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<210> 38

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 38

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 39

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 39

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 40

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 40

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Ala Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 41

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 41

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Ala Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 42

<211> 28

<212> PRT

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<223> c-term amidation

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<221> MOD_RES

<222> (14)

<223> pentlyglycine

<400> 42

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 43

<211> 28

<212> PRT

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<223> c-term amidation

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<221> MOD_RES

<222> (14)

<223> pentlyglycine

<400> 43

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Xaa Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 44

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 44

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Ala	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn
			20				25				

<210> 45

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 45

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn
			20				25				

<210> 46

<211> 28

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Exendin agonist

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<223> c-term amidation

<400> 46

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Ala
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn
			20				25				

<210> 47

<211> 28

<212> PRT
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<220>
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<220>
 <223> c-term amidation

<400> 47
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 48
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 48
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Ala Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 49
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 49
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Ala Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 50
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<212> PRT
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<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 50
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Ala Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 51
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<220>
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<220>
 <223> c-term amidation

<400> 51
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 52
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<220>
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<220>
 <223> c-term amidation

<400> 52
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Ala Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 53
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<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 53

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Ala	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn
			20					25			

<210> 54

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 54

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Ala	Phe	Ile	Glu	Trp	Leu	Lys	Asn
			20					25			

<210> 55

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 55

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Ala	Phe	Ile	Glu	Phe	Leu	Lys	Asn
			20					25			

<210> 56

<211> 28

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (22)
 <223> naphthylalanine

<400> 56
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Xaa Ile Glu Trp Leu Lys Asn
 20 25

<210> 57
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (22)
 <223> naphthylalanine

<400> 57
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Xaa Ile Glu Phe Leu Lys Asn
 20 25

<210> 58
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 58

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Val Glu Trp Leu Lys Asn
 20 25

<210> 59

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 59

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Val Glu Phe Leu Lys Asn
 20 25

<210> 60

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<220>

<221> MOD_RES

<222> (23)

<223> tert-butylglycine

<400> 60

Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn
 20 25

<210> 61

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (23)
 <223> tert-butylglycine

<400> 61
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Xaa Glu Phe Leu Lys Asn
 20 25

<210> 62
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 62
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Asp Trp Leu Lys Asn
 20 25

<210> 63
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 63
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn
 20 25

<210> 64
 <211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 64

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn
			20					25			

<210> 65

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 65

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn
			20					25			

<210> 66

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 66

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Ala	Lys	Asn
			20					25			

<210> 67

<211> 28

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 67
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn
 20 25

<210> 68
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 68
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Ala Asn
 20 25

<210> 69
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 69
 Ala Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Ala Asn
 20 25

<210> 70
 <211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 70

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Ala
			20				25				

<210> 71

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 71

Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala
			20				25				

<210> 72

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 72

Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20				25					30			

Ser	Gly	Ala	Pro	Pro	Pro
			35		

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<210> 73
<211> 38
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist
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<220>
<223> c-term amidation

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<400> 73
His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
  1                    5          10          15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
      20          25          30

Ser Gly Ala Pro Pro Pro
    35
```

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<210> 74
<211> 37
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

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<400> 74
His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
  1                      5                      10                      15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
                      20                      25                      30
Ser Gly Ala Pro Pro
          35

```

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<210> 75
<211> 36
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Exendin agonist

<220>
<223> c-term amidation

<400> 75
His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro
 35

<210> 76
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 76
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro
 35

<210> 77
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 77
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala
 35

<210> 78
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 78

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly

<210> 79

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 79

His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala

<210> 80

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 80

His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser

<210> 81
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 81
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

<210> 82
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 82
 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

<210> 83
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 83
 His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro
 20 25 30

<210> 84
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 84
 His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
 20 25 30

<210> 85
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 85
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly
 20 25

<210> 86
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (31)
 <223> thioproline

<220>
 <221> MOD_RES

<222> (36)..(38)
 <223> thioproline

<400> 86
 His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
 20 25 30
 Ser Gly Ala Xaa Xaa Xaa
 35

<210> 87
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (36)..(38)
 <223> thioproline

<400> 87
 His Gly Glu Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Xaa Xaa Xaa
 35

<210> 88
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (31)
 <223> N-methylalanine

<220>
 <221> MOD_RES
 <222> (36)..(37)
 <223> N-methylalanine

<400> 88
 His Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
 20 25 30
 Ser Gly Ala Xaa Xaa
 35

<210> 89
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (31)
 <223> homoproline

<220>
 <221> MOD_RES
 <222> (36)
 <223> homoproline

<400> 89
 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15
 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
 20 25 30
 Ser Gly Ala Xaa
 35

<210> 90
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<400> 90

His Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala
 35

<210> 91

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 91

His Gly Asp Ala Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
 20 25 30

<210> 92

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 92

Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 93

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist

<220>

<223> c-term amidation

<400> 93

Ala Gly Ala Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 94

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Exendin agonist
formula peptide

<220>

<223> c-term may be amidated

<220>

<221> MOD_RES

<222> (1)

<223> His, Arg, Tyr, Ala, Norval, Val, Norleu or 4-imidazopropionyl

<220>

<221> MOD_RES

<222> (2)

<223> Ser, Gly, Ala or Thr

<220>

<221> MOD_RES

<222> (3)

<223> Ala, Asp or Glu

<220>

<221> MOD_RES

<222> (4)

<223> Ala, Norval, Val, Norleu or Gly

<220>

<221> MOD_RES

<222> (5)

<223> Ala or Thr

<220>

<221> MOD_RES

<222> (6)

<223> Phe, Tyr or naphthylalanine

<220>
<221> MOD_RES
<222> (7)
<223> Thr or Ser

<220>
<221> MOD_RES
<222> (8)
<223> Ala, Ser or Thr

<220>
<221> MOD_RES
<222> (9)
<223> Ala, Norval, Val, Norleu, Asp or Glu

<220>
<221> MOD_RES
<222> (10)
<223> Ala, Leu, Ile, Val, pentylglycine or Met

<220>
<221> MOD_RES
<222> (11)
<223> Ala or Ser

<220>
<221> MOD_RES
<222> (12)
<223> Ala or Lys

<220>
<221> MOD_RES
<222> (13)
<223> Ala or Gln

<220>
<221> MOD_RES
<222> (14)
<223> Ala, Leu, Ile, pentylglycine, Val or Met

<220>
<221> MOD_RES
<222> (15)
<223> Ala or Glu

<220>
<221> MOD_RES
<222> (16)
<223> Ala or Glu

<220>
<221> MOD_RES
<222> (17)
<223> Ala or Glu

<220>
<221> MOD_RES

<222> (19)
 <223> Ala or Val

<220>
 <221> MOD_RES
 <222> (20)
 <223> Ala or Arg

<220>
 <221> MOD_RES
 <222> (21)..(22)
 <223> Ala, Leu, Lys-NH(epsilon)-Lys, or Lys-NH(epsilon)-Arg; this range may encompass 1-2 residues according to the specification as filed; see specification for detailed description of preferred embodiments

<220>
 <221> MOD_RES
 <222> (23)
 <223> Phe, Tyr or naphthylalanine

<220>
 <221> MOD_RES
 <222> (24)
 <223> Ile, Val, Leu, pentylglycine, tert-butylglycine or Met

<220>
 <221> MOD_RES
 <222> (25)
 <223> Ala, Glu or Asp

<220>
 <221> MOD_RES
 <222> (26)
 <223> Ala, Trp, Phe, Tyr or naphthylalanine

<220>
 <221> MOD_RES
 <222> (27)
 <223> Ala or Leu

<220>
 <221> MOD_RES
 <222> (28)..(30)
 <223> Lys-Asn, Asn-Lys, Lys-NH(epsilon)-Lys-Asn, Lys-NH(epsilon)-Arg-Asn, Asn-Lys-NH(epsilon)-Lys, Asn-Lys-NH(epsilon)-Arg, Lys-NH(epsilon)-Lys-Ala, Lys-NH(epsilon)-Arg-Ala, Ala-Lys-NH(epsilon)-Lys, or Ala-Lys-NH(epsilon)-Arg

<220>
 <223> this range may encompass 2-3 residues according to the specification as filed; see specification for detailed description of preferred embodiments

<220>
 <221> MOD_RES
 <222> (33)
 <223> Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,

N-alkylpentlyglycine and N-alkylalanine

<220>
 <221> MOD_RES
 <222> (38)..(40)
 <223> Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,
 N-alkylpentlyglycine and N-alkylalanine

<220>
 <221> MOD_RES
 <222> (41)
 <223> Ser or Tyr ,

<220>
 <223> provided that no more than three of Xaa3, Xaa4, Xaa5, Xaa6,
 Xaa8, Xaa9, Xaa10, Xaa11, Xaa12, Xaa13, Xaa14, Xaa15,
 Xaa16, Xaa17, Xaa19, Xaa20, Xaa21, Xaa24, Xaa25, Xaa26
 are Ala

<220>
 <223> provided also that, if Xaa1 is His, Arg, Tyr or
 4-imidazopropionyl then at least one of Xaa3, Xaa4 and
 Xaa9 is Ala

<220>
 <223> this peptide may encompass 28-41 residues, wherein residues
 1-20 are constant and residues 21-41 may vary in length
 according to the specification as filed; see specification for
 detailed description of substitutions and preferred embodiments

<400> 94
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly
 20 25 30
 Xaa Ser Ser Gly Ala Xaa Xaa Xaa Xaa
 35 40

<210> 95
 <211> 27
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (1)
 <223> 4-imidazolylpropionyl-Gly

<220>
 <221> MOD_RES
 <222> (26)
 <223> Lys-NH(epsilon)octanoyl

<400> 95
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu
 1 5 10 15

Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn
 20 25

<210> 96
 <211> 27
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (1)
 <223> 4-imidazolylpropionyl-Gly

<220>
 <221> MOD_RES
 <222> (26)
 <223> Lys-NH(epsilon)octanoyl

<400> 96
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu
 1 5 10 15

Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn
 20 25

<210> 97
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (1)
 <223> 4-imidazolylpropionyl-Gly

<220>
 <221> MOD_RES
 <222> (26)
 <223> Lys-NH(epsilon)octanoyl

<400> 97
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu
 1 5 10 15

Ala Val Arg Leu Phe Ile Glu Trp Leu Xaa Asn Gly Gly
 20 25

<210> 98
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
 <223> c-term amidation

<220>
 <221> MOD_RES
 <222> (1)
 <223> 4-imidazolylpropionyl-Gly

<220>
 <221> MOD_RES
 <222> (26)
 <223> Lys-NH(epsilon)octanoyl

<400> 98
 Xaa Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu
 1 5 10 15

Ala Val Arg Leu Phe Ile Glu Phe Leu Xaa Asn Gly Gly
 20 25

<210> 99
 <211> 27
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Exendin agonist

<220>
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